PRODUCT BULLETIN

ROBULL® LCM

LOST CIRCULATION MATERIAL





LCM BEFORE ABOSRPTION



LCM AFTER ABSORPTION

PRODUCT DESCRIPTION

NO BULL® LCM is a blend of highly-processed, lightweight, 100% organic RECYCLED plant fibers that interweave and plug fractures and voids immediately. Compatible with water or oil-based drilling fluids, NO BULL® LCM is proven to be a superior sealant in down-hole applications as well as extremely cost effective...a little goes a long way!

BENEFITS

- PROVEN TO STOP MUD LOSS IMMEDIATELY
- HIGHLY COST EFFECTIVE
- ◆ USDA CERTIFIED BIOBASED PRODUCT 100%
- FOR ALL TYPES OF DRILLING FLUIDS
- ◆ 7X OIL ABSORPTION
- 100% BIODEGRADABLE
- EXPANDS 1.5 TIMES ITS ORIGINAL DRY SIZE
- STABLE IN HIGH-TEMP APPLICATIONS
- EASILY MIXES WITH ALL KINDS OF MUDS
- CONSISTENT QUALITY FROM BAG TO BAG
- SILICA-FREE
- MADE IN THE USA

SUSTAINABLE

- NOT HARMFUL TO THE ENVIRONMENT
- PRODUCTION OF LCM DOES NOT DEPLETE NATURAL RESOURCES
- ◆ 100% RECYCLED FROM VIRTUALLY UNLIM-ITED SOURCES

APPLICATION

Typically mixed at 2 lbs per barrel of mud, NO BULL® LCM is highly cost effective compared to other LCM products, organic or synthetic.

Manufactured by NO-BULL® A Division of NCS, Inc. 130 Industrial Dr. Chambersburg, PA 17201 717-261-5711 www.nobullsupply.com



^{*}Not recommended for absorbing strong oxidizing agents, strong acids or caustics.

^{** 7-}to-1 claim on weight to weight absorption of water. Fluids and absorbency rates vary by product & application. Rates listed should be treated as approximations

SPECIFICATION & PACKAGING

RESTRICT BULLE LOST CIRCULATION MATERIAL







HANDLING AND STORAGE

Store in cool, dry well-ventilated area away from ignition sources and strong oxidizing agents. Please review the Safety Data Sheet thoroughly before using this product under resources at www.nobullsupply.com.

TYPICAL PHYSICAL PROPERTIES

| Appearance Brown, fibrous material |
|--|
| Specific Gravity |
| Water Solubility minimal |
| Bulk Density10 lb/cubic foot 270 lb/cubic yard |
| Acid Solubility 65% soluble in 15% Hydrochloric acid |

PARTICLE SIZE DISTRIBUTION

| Retained on 10 Mesh | 19.6% |
|---------------------|-------|
| Retained on 20 Mesh | 20.6% |
| Retained on 40 Mesh | 24.9% |
| Retained on 60 Mesh | 17.8% |
| Retained on 80 Mesh | 5.9% |
| Passing 80 Mesh | 9.1% |

PACKAGING

No-Bull® LCM is available in 1 Cu.Ft. 5 mil UV resistant bags with a waterproof UV resistant hood via full truck loads or by the pallet.

Shrink-wrapped pallet: 78 bags Full truckload: 2,028 bags

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